

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Pugsley Bridge

Other names/site number: 24LT0076

Name of related multiple property listing:

N/A

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

Street & number: Milepost 5.5 on Pugsley Bridge Road

City or town: Chester State: MT County: Liberty

Not For Publication: ☐ N/A Vicinity: ☒ X

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

 national X statewide X local

Applicable National Register Criteria:

 A B X C D

Signature of certifying official/Title:

Date

State or Federal agency/bureau or Tribal Government

In my opinion, the property X meets does not meet the National Register criteria.

Signature of commenting official:

Date

Title :

State or Federal agency/bureau
or Tribal Government

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4. National Park Service Certification

I hereby certify that this property is:

- ☐ entered in the National Register
☐ determined eligible for the National Register
☐ determined not eligible for the National Register
☐ removed from the National Register
☐ other (explain:) _____

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private: ☐
Public – Local ☒
Public – State ☐
Public – Federal ☐

Category of Property

(Check only **one** box.)

- Building(s) ☐
District ☐
Site ☐
Structure ☒
Object ☐

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u> </u>	<u> </u>	buildings
<u> </u>	<u> </u>	sites
<u> 1 </u>	<u> </u>	structures
<u> </u>	<u> </u>	objects
<u> 1 </u>	<u> 0 </u>	Total

Number of contributing resources previously listed in the National Register N/A

6. Function or Use

Historic Functions

(Enter categories from instructions.)

TRANSPORTATION/road-related = bridge

Current Functions

(Enter categories from instructions.)

TRANSPORTATION/road-related = bridge

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7. Description

Architectural Classification

(Enter categories from instructions.)

OTHER: Cable-stayed Suspension Bridge

Materials: (enter categories from instructions.)

Principal exterior materials of the property: Concrete, Steel, Wood

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Pugsley Bridge crosses the Marias River in northcentral Montana. The bridge is located in the river breaks on Pugsley Bridge Road about 21 miles south of Chester, the seat of Liberty County, and 4.4 river miles downstream of Tiber Dam. Geologically, the meandering river cuts through Fort Union Formation and sits at the base of steep silty bluffs on the north side of the Marias River. The area around the bridge is used for recreation purposes and stock pasturage. Civil engineer Thomas W. Hurdle designed the bridge specifically for this site. The prior bridge located here was often damaged by ice jams in the winter and early spring months. The Pugsley Bridge provides a clear span crossing of the river, thereby negating problems with ice. The bridge is of distinct design and stands as the only cable-stayed bridge in Montana. Its unusual design relegates it to perhaps one of a few, or possibly, the only cable-stayed structure of this unique design in the United States.

Narrative Description

The Pugsley Bridge is a 3-span, cable-stayed suspension bridge. It measures 326 ft. long and 16 ft. wide with a roadway width of 15 ft. The span distance between the suspension towers measures 290 ft. The earlier truss bridge's concrete piers and abutments, built in 1914, that previously stood at this location serve as the Pugsley Bridge foundations. The towers are built of two steel I-beam verticals separated by double angle-section struts and fleet steel bar cross-bracing. The deck is suspended from the towers by means of two pairs of cables. Each cable is separated from the other in its pair by compression members of double angle sections. The

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resulting “panels” are cross-braced with diagonal cable members. Each of these panels measure 18 ft. long. The upper cable of each pair is a straight line angling downward from the tower to the center of the span. The lower cable of the pair approaches a catenary.¹ The two cables cross at the center span just above the deck at which point the cable that served as the upper member becomes the lower member as it approaches the other tower, and vice versa. Each pair of cables is anchored to the ground by a concrete deadman at each end of the structure. Steel I-beam floor beams are pin-connected to the cables that suspend the floor beams from the verticals which separate the cables. Wood stringers sit on the top flange of the floor beams. The bridge has a timber deck. The structure rests by way of the rocker bearings on two solid concrete piers and two concrete abutments. The bridge deck is flanked by steel cable guardrails attached to steel I-beams.

Integrity

The bridge retains a high degree of integrity and stands as the only example of this unique design in Montana. Indeed, it may be the only example of this design in the United States. The bridge is at its original location and the rural setting of the structure remains intact and unchanged since its construction in 1950. The bridge has seen no change in the original materials of the towers and floor system. The workmanship is excellent and the bridge represents a clear example of a cable-stayed structure. All the elements critical to the design remain intact and unchanged. The bridge, moreover, is in good condition; only minor rust and scale on the steel components of the bridge occurs and there is minor spalling and age deterioration on the concrete foundation. Slight settlement of the fill on the approaches is visible.

Changes to the bridge include those to the deck and guardrails. The deck was originally wood with an asphalt overlay (which placed a significant dead load on the cables). Liberty County forces converted the timber deck to corrugated metal in 1973. The Montana Department of Highways (now Montana Department of Transportation/MDT) replaced the corrugated metal deck with the existing timber deck in the late 1970s or early 1980s. The present deck now resembles the original bridge deck of the 1950s and 1960s – but without the asphalt overlay. The guardrails, originally timber, were replaced by the MDT with the existing cable guardrails in 1985 or 1986. The decking and guardrails do not detract significantly from the appearance of the bridge, which is dominated by the vertical steel towers and the web of cables that support the deck.

¹ A catenary represents the curve formed by a hanging chain or cable from its own weight when supported only at its ends.

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8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- ☐ A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ☐ B. Property is associated with the lives of persons significant in our past.
- ☒ C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☐ D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

- ☐ A. Owned by a religious institution or used for religious purposes
- ☐ B. Removed from its original location
- ☐ C. A birthplace or grave
- ☐ D. A cemetery
- ☐ E. A reconstructed building, object, or structure
- ☐ F. A commemorative property
- ☐ G. Less than 50 years old or achieving significance within the past 50 years

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Areas of Significance

(Enter categories from instructions.)

ENGINEERING

TRANSPORTATION

Period of Significance

1950-1970

Significant Dates

1950

Significant Person

(Complete only if Criterion B is marked above.)

Cultural Affiliation

Architect/Builder

Thomas W. Hurdle/Designer

Liberty County/Builder

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Pugsley Bridge was constructed in 1950 and replaced an earlier through truss bridge destroyed by an ice jam in 1947. The bridge stands as the only cable-stayed-type bridge in Montana and may be the only one of this design in the United States. Civil engineer Thomas W. Hurdle designed a unique cable-stayed system to provide a clear span over the Marias River, a river notorious for ice jams damaging and destroying bridge structures. Other than replacement of the original wood guardrails in the late 1980s, no significant modifications have occurred to this structure since its construction. The cable guardrails do not detract from the overall integrity

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of this singular structure and instead enhance the towers and other structural details. The Pugsley Bridge is eligible for listing in the National Register of Historic Places under Criterion C.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Introduction

The Pugsley Bridge is eligible for listing in the National Register of Historic Places under Criterion C as a unique example of a cable-stayed suspension bridge in Montana. Indeed, the bridge is the only one of this type in the state and perhaps the only one of this design in the United States. The bridge was designed by Thomas Hurdle, a civil engineer based in Billings, Montana, specifically for this site based on need and limited Liberty County financial resources. The bridge crossing presented significant challenges to Liberty County. The steel truss bridge previously located at the site constructed in 1914, was often damaged by ice during the winter and spring months. A particularly powerful ice jam in March 1947 moved the original bridge off its foundations and deposited the structure on the bank of the Marias River. Before the county and its consulting engineer, RT Hurdle and Sons, had a chance to repair the structure, another ice jam in 1949 totaled the bridge. The complete loss of the bridge required a reevaluation of the type of structure needed to ford the river, doing so for the \$53,500 available for the project. Thomas Hurdle devised a unique cable-stayed system that would provide a clear span across the river and do it well within the money allocated for the project.

The design of the Pugsley Bridge was developed specifically for crossing the Marias River at this exact location. The design included simple steel I-beam towers, reinforced concrete deadmen to anchor the cables, and a distinctive system of cables and braces that held the deck of the bridge rigid enough to allow traffic. The original system of cables and braces-members remain intact and unchanged. The bridge prominently displays cable-stayed bridge characteristics. On cable-stayed bridges, the cables connect to the deck as is the case with the Pugsley Bridge. Suspension-type bridge features visible on the Pugsley Bridge include the vertical cables suspended from the main cables and attached to the deck and the concrete deadman anchors at both ends of the structure.² The cantilever deck is an attribute of cable-stayed structures, but the deformation of the deck is more associated with suspension bridges.

At the time of its completion, the Pugsley Bridge stood as the only bridge of its type in Montana and, according to Thomas Hurdle and contemporary civil engineer Dennis Nottingham, the only example of this design in the United States.³

² Typically, cable-stayed bridges don't require anchors for the towers.

³ Mr. Nottingham was prominently involved in the design of the O'Connell cable stayed bridge built in Sitka, Alaska in 1972.

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History of the Area of the Pugsley Bridge

The vast territory north of the Missouri River in Montana, where the Pugsley Bridge lies, was historically the domain of the Piegan Blackfeet Indians. Meriwether Lewis named the Marias River in June 1805 for his cousin, Mariah Wood. In 1847, the American Fur Company (AFC) established Fort Benton, the head of navigation on the Missouri River, about forty miles southeast of the future site of the bridge. Through the late nineteenth century, the non-Indian presence on the northern Great Plains in the vicinity of the future site of the bridge became more common, but still relatively rare on the upper Marias River.⁴

Washington territorial governor Isaac Stevens, who supervised the survey for a northern transcontinental railroad route in the 1850s, successfully negotiated a treaty with the Blackfeet, Áaniih (Gros Ventre), Assiniboiné, and River Crow Indians at the mouth of the Judith River in October 1855. The Lame Bull Treaty provided for annuities and established an immense 21,651,000-acre reservation that encompassed northern Montana “from the crest of the Continental Divide to the mouth of the Milk River and from the United States-Canada boundary southward to the upper Musselshell River.” Importantly, the tribes agreed to allow construction of wagon roads, railroads, telegraph lines, and military posts on their reservation. Unlike other reservations in Montana, the northern reserve was remote and far removed from the demands of non-Indian settlers. The vast space comprising the reservation also kept the tribes a comfortable distance from each other.⁵

The intrusion of non-Indians into the enormous reservation north of the Missouri River increased after the discovery of gold in southwestern Montana in 1862 and the rise of the cattle industry beginning in the 1870s. Both events increased tensions between the tribes, particularly the Piegan Blackfeet, and non-Indians, which too often erupted into violence. The problems culminated in August 1869, when several Blackfeet warriors killed prominent Montana rancher Malcolm Clarke and wounded his son at the family ranch north of Helena. The government responded to public pressure by mounting a military raid into the reservation in January 1870. The army’s goal was to punish the band responsible for the attack. On January 23, 1870, soldiers from Fort Shaw mistakenly attacked the wrong a Blackfeet village on the Marias River west of the bridge. The bloodbath resulted in the deaths of over 175 old men, women, children, many of whom were infected with smallpox. The Baker, or Marias, Massacre permanently broke the

⁴ Bernard DeVoto, *Across the Wide Missouri*, (Boston: Houghton Mifflin, 1947), 80-85; Bernard DeVoto, *The Journals of Lewis and Clark*, (Boston: Houghton Mifflin Company, 1953), 132-133; Merrill G. Burlingame, *The Montana Frontier*, (Helena: State Publishing Company, 1942), 47, 58-59; Michael P. Malone, Richard B. Roeder, and William L. Lang, *Montana: A History of Two Centuries*, rev ed. (Seattle: University of Washington Press, 1991), 116-117.

⁵ Malone, et al., *Montana*, 116-117; Don Spritzer, *Roadside History of Montana*, (Missoula: Mountain Press Publishing Company, 1999), 39; Paul F. Sharp, “Blackfeet of the Border: One People Divided,” *Montana The Magazine of Western History*, vol. 20, no. 1 (Winter 1970), 5; James McClellan Hamilton, *History of Montana: From Wilderness to Statehood*, (Portland, OR: Binfords & Mort, 1957), 178-181; Burlingame, *The Montana Frontier*, 36.

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military power of the Blackfeet north of the Missouri and began a process by which the federal government removed large chunks of land from the reservation. The Piegan ceded the Pugsley Bridge area to the federal government in 1888.⁶

With the reduction of the reservation and the extermination of the buffalo in the early 1880s, the non-Indian exploitation of the region began in earnest. In 1892, James J. Hill extended his Great Northern Railway to the west coast through Blackfeet territory. The Pacific Extension deposited towns in its wake, including Chester, which originated as a railroad watering station in 1891. The federal government's General Land Office (GLO) surveyed the future site of the Pugsley Bridge in October 1896. With the arrival of the railroad, the GLO survey, and the passage of the 1909 Enlarged Homestead Act, hundreds of homesteaders flooded into a region once populated by the Blackfeet and buffalo, including the site of the bridge.⁷

The Pugsley Bridge crosses the river in what historically has been known as Pugsley Bottom since the early twentieth century. Leonard Pugsley filed on 77 acres in the NW¼ NE¼ of Section 11, T29N, R5E in the late 1890s. He obtained the patent to the property in March 1902. His brother, Moses, patented 170 adjacent acres in May 1906. The Pugsley Brothers owned and operated a sheep and cattle ranch and also raised alfalfa. Born in Nova Scotia in 1864, Leonard arrived in the United States in 1891 and became a naturalized citizen of the country at Fort Benton in October 1894. In addition to his ranching interests Leonard Pugsley was also the president of the First State Bank of Chester from 1910 to 1916. The Pugsley Ranch Company still owns much of the land encompassing the bridge.⁸

The Pugsley Bridge

During the early spring of 1947, an ice jam moved a through truss bridge located at this site off its foundation and onto the riverbank about a half-mile downstream. The bridge was constructed in 1914 by the O. E. Peppard Company of Missoula. In 1947, Liberty County Commissioners hired the Billings-based RT Hurdle & Sons engineering firm to estimate the cost of retrieving the bridge and placing it back onto its foundation. The company estimated a cost to the county of \$53,520 to complete the work. It was not until January 1948 that the Liberty County commissioners circulated petitions to hold an election for a bond to cover the cost of reconstructing the bridge. The petition received the required number of signatures and the bond

⁶ Burlingame, *The Montana Frontier*, 223-224; Malone et al., *Montana*, 120, 143; Don Spritzer, *Roadside History of Montana*, (Missoula: Mountain Press Publishing Company, 1999), 67, 68.

⁷ *Montana Place Names from Alzada to Zortman: A Montana Historical Society Guide*, (Helena: Montana Historical Society Press, 2009), 44-45; General Land Office Map, October 30, 1896, viewed at www.glorerecords.blm.gov.

⁸ The Bureau of Land Management owns land just north of the bridge. The small fishing access site on the south side of the bridge is also owned by the BLM. General Land Office Records; US Census Records; "Local Items," *The Dupuyer Acantha*, October 31, 1901; "New Citizens," *The (Fort Benton) River Press*, October 31, 1894; Ruby Langel, comp., *Chester Country: A Century of Changes*, (Chester: The author, 1995), 244.

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election was held in July 1948. Before the work could be accomplished, however, a second ice jam in 1949 moved the old bridge another mile downstream and all but demolished it.⁹

Because the destruction of the old bridge precluded its rehabilitation at its original site, Liberty County and Thomas "Tom" Hurdle made plans to construct a new bridge at the site. Hurdle decided on a cable-stayed bridge design as it would provide a free span across the Marias River, minimizing the potential damage to the structure from ice jams in the future.¹⁰ Liberty County advertised for bids to construct the new bridge, but all came in much higher than the engineer's estimate and were rejected by the commissioners. Instead of relying on a contractor, the county commissioners decided to use county forces to build the new bridge under the supervision of Tom Hurdle's younger brother, Willard. Liberty County forces began work on the new bridge in September 1949. Falsework was not used by the builders to construct the new bridge and portions of the original structure (i.e., the abutments and one of the approach piers) were incorporated into the design of the new bridge. At its peak, eight men were employed on the job with construction equipment consisting only of a backhoe, a "concrete mixer, 2-drum hoist ... winch truck, compressor and welding and burning equipment."¹¹

The Great Falls Iron Works Company supplied the structural steel for the bridge, the Pacific Wire Rope Company of Los Angeles supplied cables, and the Larraine Valley Lumber Company of Cottage Creek, Oregon supplied timber. The county completed work on the bridge in July 1950 at a cost of \$51,546, nearly two thousand dollars less than the engineer's estimate and the cost of the bond. RT Hurdle & Sons' pride in the project was demonstrated on the company's stationery, which included a profile of the Pugsley Bridge.¹²

In 1963, problems surfaced regarding the camber (arch) of the bridge deck. It had settled significantly due to the cables being stretched, a consequence of what Tom Hurdle believed was related to overloading from heavy vehicle passage when the US Bureau of Reclamation constructed nearby Tiber Dam in the 1950s. The bridge also suffered from a deteriorated deck and the timber guardrails were in poor condition. By 1967, the problems had not been rectified and Hurdle contacted Montana representative Arnold Olsen to acquire federal funds for the

⁹ "Liberty County Readvertises for Bridge Bids," *The Great Falls Tribune*, July 18, 1949; Thomas W. Hurdle, "Suspension Bridge of a Novel Design Across Montana River," *Western Construction News*, (September 1950), 77; "Old Time Pugsley Bridge on Marias Lost by Ice Breakup," *The (Fort Benton) River Press*, March 26, 1947; "Asking for New Bridge," *The River Press*, January 14, 1948; "To Vote on Bridge Bonds," *The Great Falls Tribune*, April 13, 1948.

¹⁰ With the completion of Tiber Dam in 1956, ice jams on the Marias River downstream from the dam ceased being a problem.

¹¹ *Western Construction News*: 77; Fredric L. Quivik, *Historic Bridges in Montana*, (Washington DC: National Park Service, 1982), 65.

¹² *Western Construction News*: 77; Quivik, *Historic Bridges*, 65; Montana Department of Highways, *Historic Bridge Inventory*, book II, p. 51; "Bridge Nears Completion," *The River Press*, June 21, 1950; "New Bridge Completed," *The Great Falls Tribune*, July 30, 1950.

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repair of the bridge. Hurdle's bid for federal funds failed and it was not until 1973 that any work occurred on the bridge. In that year, Liberty County removed the original timber deck and asphalt overlay and replaced it with a corrugated metal deck. Apparently, the county expected to place an asphalt overlay on the corrugated metal, but that never happened because of budget constraints. In either 1985 or 1986, the Montana Department of Transportation removed the corrugated metal deck and replaced it with a timber deck. The state agency also removed the original wood guardrails and replaced them with the existing steel I-beam and cable rails.¹³

Engineering Significance

Although the concept of cable-stayed bridges has been known by engineers since the late sixteenth century, they were not widely used until the nineteenth century, mostly in Europe. The design gained in popularity largely because of the European Industrial Revolution when iron and steel became more widely available to builders. Cable-stayed bridges differ from suspension bridges in that the cables run directly from the towers to the deck. On suspension bridges, the cables hang between the towers with cables suspended between the cables and the deck. Early suspension bridges, like the Brooklyn Bridge feature both cable-stayed and suspension characteristics. Cable-stayed bridges are optimal for structures longer than cantilever structures and shorter than suspension bridges (1,200 to 3,500 feet). The oldest remaining cable-stayed bridge in the United States is the Dale suspension bridge at Bluff Dale, Texas (1890).

The towers serve as the primary load-bearing structures for cable-stayed bridges. The towers transmit the dead (the deck structure) and live (traffic) loads to the ground. Early American cable stay bridges, such as the Pugsley Bridge utilized concrete deadman anchors at each end of the structure and featured narrow deck widths, usually eight to sixteen feet. Although cantilever spans often function as approach spans to the portal-type towers, the twenty-foot length of each of the approaches on the Pugsley Bridge are short enough to preclude that design feature (instead using simple steel I-beam stringers). With cable-stayed bridges, the cables tend to pull to the sides, rather than directly up as with suspension bridges, which may explain the problems with the deck that arose by the 1960s. Cable-stayed bridges usually do not require anchorages at both ends because the cantilever approaches function in that capacity. Because the approach spans on the Pugsley Bridge are not cantilevered, the designer, Tom Hurdle, incorporated concrete deadmen to function in that capacity.

While popular in Europe, cable-stayed bridges never really gained acceptance in the United States and by the turn-of-the twentieth century had largely fallen from favor. Indeed, popular bridge design instruction manuals, such as JAL Waddell's *Bridge Engineering* (1916), do not even mention the type. At the end of the World War II, however, the expansion of the United

¹³ Bridge Inspection File No. L26038005+01001. Bridge Bureau. Montana Department of Transportation, Helena, Montana, 1979-2018.

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States' highway system and the availability of cheaper materials and larger construction machinery lowered the price to build cable-stayed bridges. The first major post-WWII cable-stayed bridge is the 1,089-foot Strömsund Bridge in Strömsund, Sweden (built 1956). In the United States, the O'Connell Bridge in Sitka, Alaska represents the first major cable-stayed bridge built (1972). The O'Connell Bridge measures 1,350 feet in length. The Pugsley Bridge predates both structures.

The Pugsley Bridge stands as a modified cable-stayed structure with some suspension bridge characteristics. On cable-stayed bridges, the cables run directly from the towers and connect to the deck. The towers are the primary load-bearing structures that transmit the bridge loads to the ground. For cable-stayed bridges, ground anchorages are not usually required, but the Pugsley Bridge features cables anchored by concrete deadmen providing additional support for the towers. The anchorages are a characteristic of suspension bridges. Likewise, cable-stayed structure typically don't have vertical cables descending from the main cables to the deck. The Pugsley Bridge does have that feature, designed into the structure by Tom Hurdle, which distinguishes this bridge from a standard cable-stayed structure. The innovative design of the bridge allowed engineer Hurdle to keep within the limited budget available to him.

What differentiates the Pugsley Bridge from other cable-stayed bridges (besides the suspension bridge features) is that it is statically determinate. The arrangement of support cables provides an ingenious solution for this early bridge. Galvanized independent wire rope core (IWRC) cables provide main support in conjunction with side trusses formed of cables that support a timber bridge deck. This solution resulted in a cost-effective clear span crossing of the Marias River a necessity based on past events of spring break-up ice floes that destroyed the previous bridge. The Pugsley Bridge, moreover, may be the first cable-stayed bridge built in the United States in the twentieth century and the only one of this design.

Thomas W. Hurdle, Designer

Civil engineer Thomas W. Hurdle developed the unique design for the Pugsley Bridge. Born in Glendive, Montana, in December 1917, he was the son of Reginald T Hurdle, the Dawson County Surveyor. Reginald enjoyed a long and successful civil engineering career in Montana after arriving in the state in 1907 with the US Reclamation Service. Thomas attended schools in Glendive and Great Falls. In 1941, he obtained a degree in Civil Engineering from Montana State College (now Montana State University) in Bozeman. He married Helen Seitz in Bozeman shortly after graduating in 1941 and enlisted in the US Army Air Force the same year. He was a

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bomber pilot who flew thirty-five missions against Nazi Germany before his discharge in 1946. In 1947, Thomas, Reginald, and Willard Hurdle formed RT Hurdle & Sons.¹⁴

While the firm worked throughout Montana, primarily on water lines and sewer projects, it never worked for the Montana Highway Department. In 1950, Yellowstone County voters elected Thomas W. Hurdle to the office of County Surveyor. He held that position until resigning in July 1954 to reenter private practice. He also made an unsuccessful attempt for election to the State House of Representatives. For the rest of his time in Billings, Tom worked on public utility projects with his father and brother, including the expansion of Malmstrom Air Force Base and the construction of Minuteman missile silos in central Montana in the early 1960s. Reginald died in 1968 and it appears R. T. Hurdle & Sons faded away after his death. At the time of his passing, Tom worked for a consulting engineering firm in South Bend, Indiana, and his brother, Willard, lived in Sacramento. Tom Hurdle died in Tempe, Arizona, in June 1996.¹⁵

¹⁴ US Census Records, viewed at www.ancestry.com; "Former Surveyor Files for House," *The Billings Gazette*, June 9, 1954; "Thomas W. Hurdle," *The Billings Gazette*, June 19, 1996; "Thomas W. Hurdle," *The Arizona Republic*, June 12, 1996.

¹⁵ "Thomas W. Hurdle for County Surveyor," *The Billings Gazette*, November 1, 1950; "Official Canvass by County Board Shows Election Results Unchanged," *The Billings Gazette*, November 16, 1950; "Commission Proceedings," *The Laurel Outlook*, May 12, 1954; "R. T. Hurdles Note Anniversary," *The Billings Gazette*, June 15, 1958; "R. T. Hurdle, Former City Engineer, Dies," *The Billings Gazette*, January 25, 1968; "Lawrence Council Gets Plans for New City Sewage Plant," *The Indianapolis Star*, September 9, 1969.

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“Pugsley Bridge Only One of its Kind.” *The Liberty County Times*, June 8, 1950.

Quivik, Fredric L. *Historic Bridges in Montana*. (Washington DC: National Park Service, 1982).

Spritzer, Don. *Roadside History of Montana*. Missoula: Mountain Press Publishing Co, 1999.

“Thomas W. Hurdle.” *The Arizona Republic*, June 12, 1996.

“Thomas W. Hurdle.” *The Billings Gazette*, June 19, 1996.

“To Vote on Bridge Bonds.” *The Great Falls Tribune*, April 13, 1948.

United States Census Records. Viewed at www.ancestry.com.

“Whoopee!” *The Chester Signal*, March 12, 1914.

Pugsley Bridge
Name of Property

Liberty County, MT
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Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
☐ previously listed in the National Register
☐ previously determined eligible by the National Register
☐ designated a National Historic Landmark
☐ recorded by Historic American Buildings Survey #
☐ recorded by Historic American Engineering Record #
☐ recorded by Historic American Landscape Survey #

Primary location of additional data:

- ☐ State Historic Preservation Office
☒ Other State agency
☐ Federal agency
☐ Local government
☐ University
☐ Other
Name of repository: Montana Department of Transportation

Historic Resources Survey Number (if assigned):

10. Geographical Data

Acreage of Property 0.25 acre

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84:
(enter coordinates to 6 decimal places)

- | | |
|------------------------|--|
| 1. Latitude: 48.291410 | Longitude: -111.046220 (northeast end of bridge) |
| 2. Latitude: 48.290580 | Longitude: -111.047090 (southwest end of bridge) |
| 3. Latitude: | Longitude: |
| 4. Latitude: | Longitude: |

Pugsley Bridge
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Verbal Boundary Description (Describe the boundaries of the property.)

Including a slight buffer, the boundary for the Marias Pugsley Bridge measures approximately 30 x 370 feet. The rectangle encompasses the bridge and its approaches. The bridge is in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 11, T29N, R5E.

Boundary Justification (Explain why the boundaries were selected.)

The boundary is determined by space occupied by the bridge and its approaches with a small buffer.

11. Form Prepared By

name/title: Jon Axline/Historian
organization: Montana Department of Transportation
street & number: 2701 Prospect Avenue
city or town: Helena state: MT zip code: 59620-1001
e-mail: jaxline@mt.gov
telephone: (406) 444-6258
date: June 2020

Property Owner:

(Complete this item at the request of the SHPO or FPO.)

name Liberty County
street & number PO Box 459 telephone (406) 759-5365
city or town Chester state MT zip code 59522

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A USGS map or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Pugsley Bridge
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Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log, All Photographs

Name of Property: Marias River/Pugsley Bridge

City or Vicinity: 21 miles south of Chester

County: Liberty State: MT

Photographer: Kristi Hager

Date Photographed: May 2020

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of ____.

Please see Continuation Sheets

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

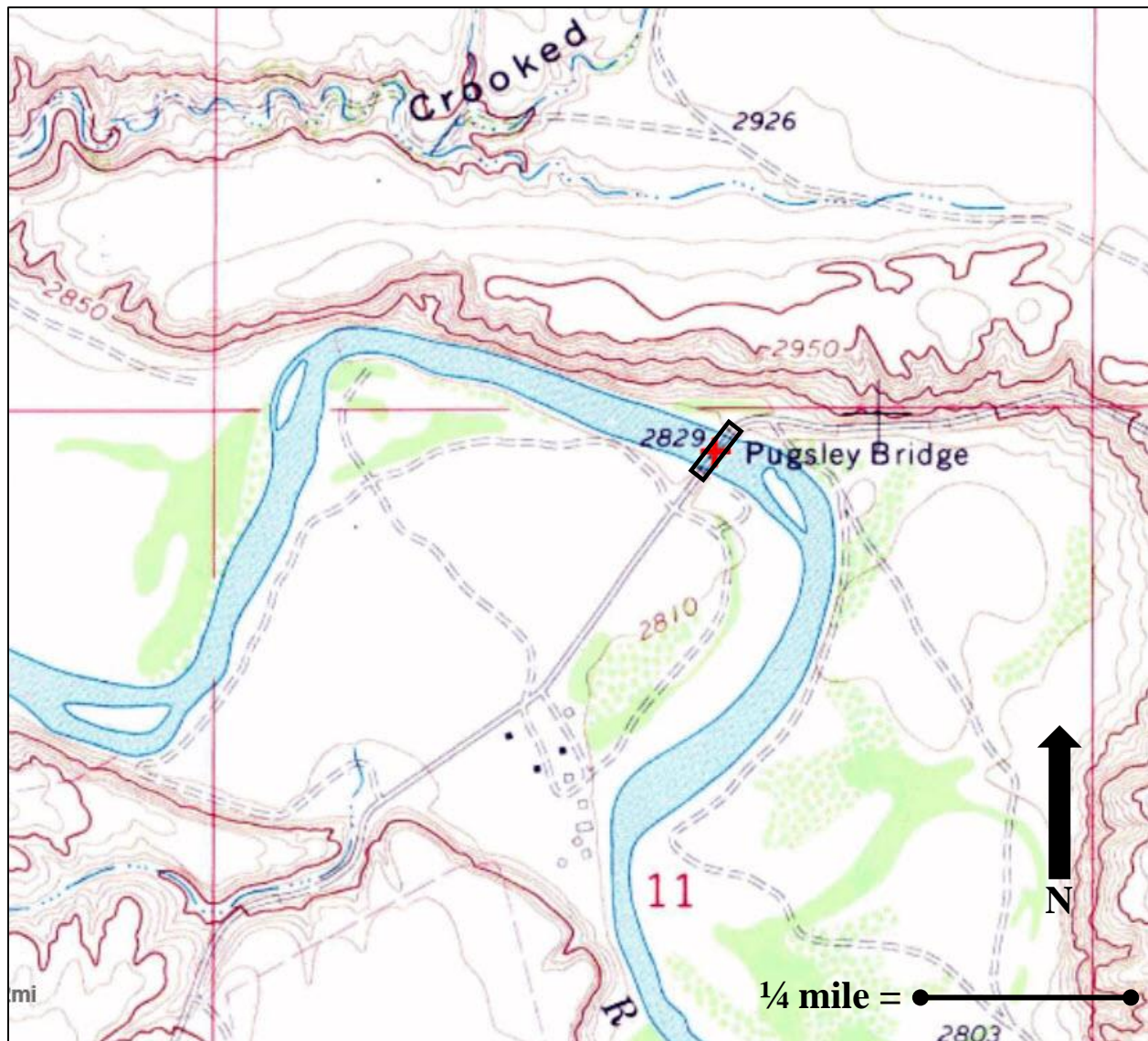
Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

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National Park Service

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Name of multiple listing (if applicable)

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Location of the Pugsley Bridge, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 11, T29N, R5E. Found on the USGS 7.5' Quadrangle map: Tiber Dam (1970).

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Aerial view of the Pugsley Bridge (conscribed in black), NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 11, T29N, R5E

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Photo Log, All Photographs:

Name of Property: Pugsley Bridge
City or Vicinity: 21 miles south of Chester
County: Liberty State: MT
Photographer: Kristi Hager
Date Photographed: May 2020



Pugsley Bridge. southeast side. View to west.
MT_LibertyCounty_PugsleyBridge_0001

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**Pugsley Bridge. Southeast side. View to the west.
MT_LibertyCounty_PugsleyBridge_0002.**

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**Pugsley Bridge. Northeast portal. View to southwest.
MT_LibertyCounty_PugsleyBridge_0003.**

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**Pugsley Bridge. Southeast side. View to north.
MT_LibertyCounty_PugsleyBridge_0004.**

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**Pugsley Bridge. Detail of deck structure. View to the north.
MT_LibertyCounty_PugsleyBridge_0005.**

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**Pugsley Bridge. Southeast side. View to northwest.
MT_LibertyCounty_PugsleyBridge_0006.**

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**Pugsley Bridge. Southwest portal. View to the northeast.
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**Pugsley Bridge. Detail of main span. View to northwest.
MT_LibertyCounty_PugsleyBridge_0008.**

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**Pugsley Bridge. Detail of cable stay. View to northwest.
MT_LibertyCounty_PugsleyBridge_0009.**

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**Pugsley Bridge. Detail of cables. View to the northwest.
MT_LibertyCounty_PugsleyBridge_0010.**

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**Pugsley Bridge. Detail of deck and cable stays. View to north-northeast.
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**Pugsley Bridge. Northeast cable anchor. View to southwest.
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**Pugsley Bridge. Southwest cable anchors. View to northwest.
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**Pugsley Bridge. Southeast pier. View to the northwest.
MT_LibertyCounty_PugsleyBridge_0014.**